IN VITRO, MULTIPLE ELECTRODE PAIR ARRAY AND MULTIPLE TREATMENT CELL APPARATUS FOR USE IN ELECTROPORATION Abstract of the Disclosure

A multiple electrode pair array apparatus is provided for use with a multiple well plate which has multiple wells distributed in a two-dimensional matrix array which has R rows and C columns. multiple electrode pair array apparatus includes a non-conductive base member. An array of pairs of electrodes are attached to the base member and 10 project therefrom. The pairs of electrodes are distributed on the base member in a two-dimensional matrix array which has R rows and C columns to enable registration with the two-dimensional matrix 15 array of wells. Each pair of electrodes includes a respective first electrode and a respective second electrode. An array of R row conductors are electrically connected to corresponding first electrodes. An array of C column conductors are 20 oriented perpendicular to the R row conductors, are electrically insulated from the row conductors, and are electrically connected to corresponding second electrodes.